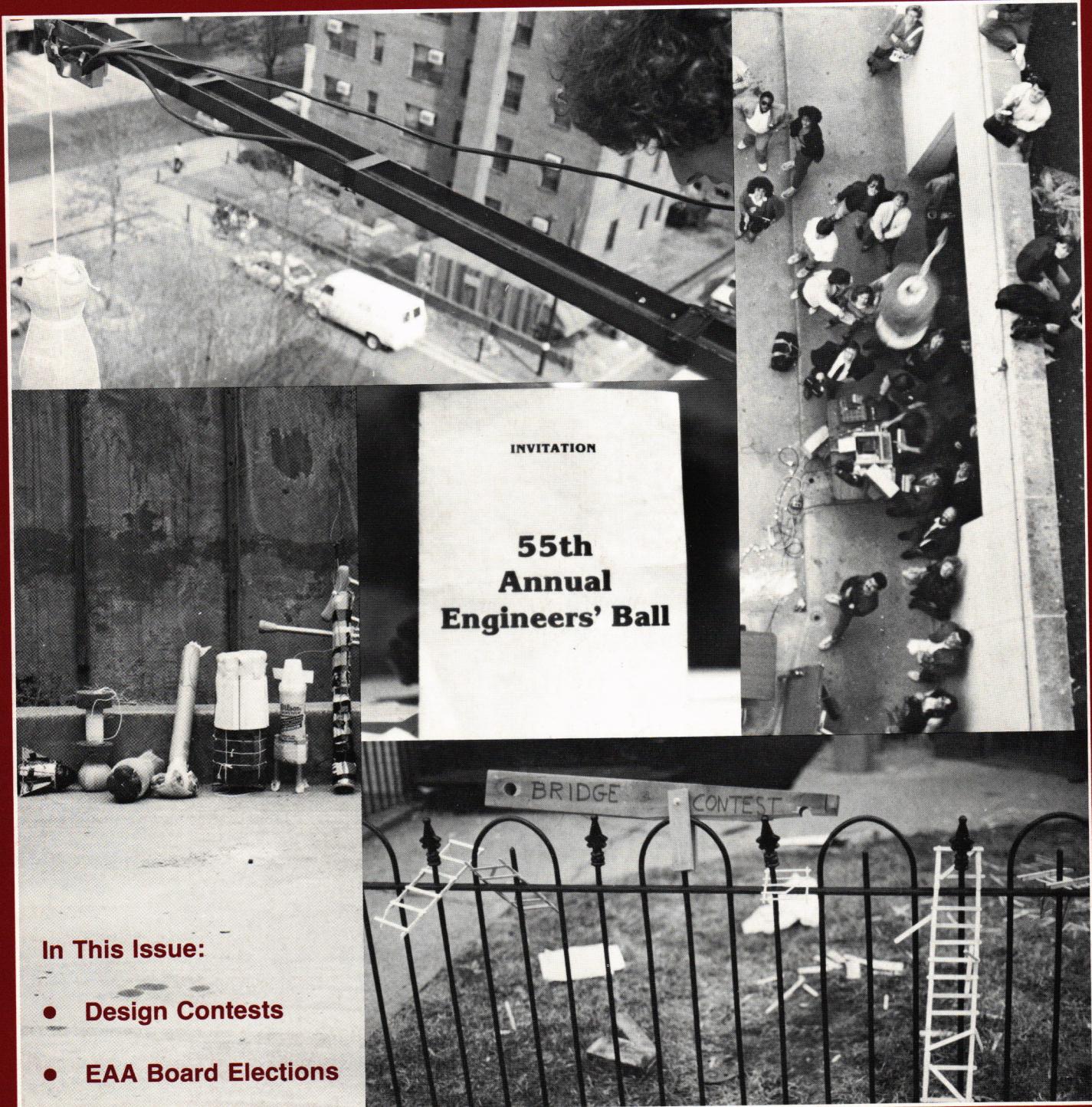


VOLUME 32, NO.2 • THE GEORGE WASHINGTON UNIVERSITY • EDITION 2, SPRING 1985

MECHIELCIV



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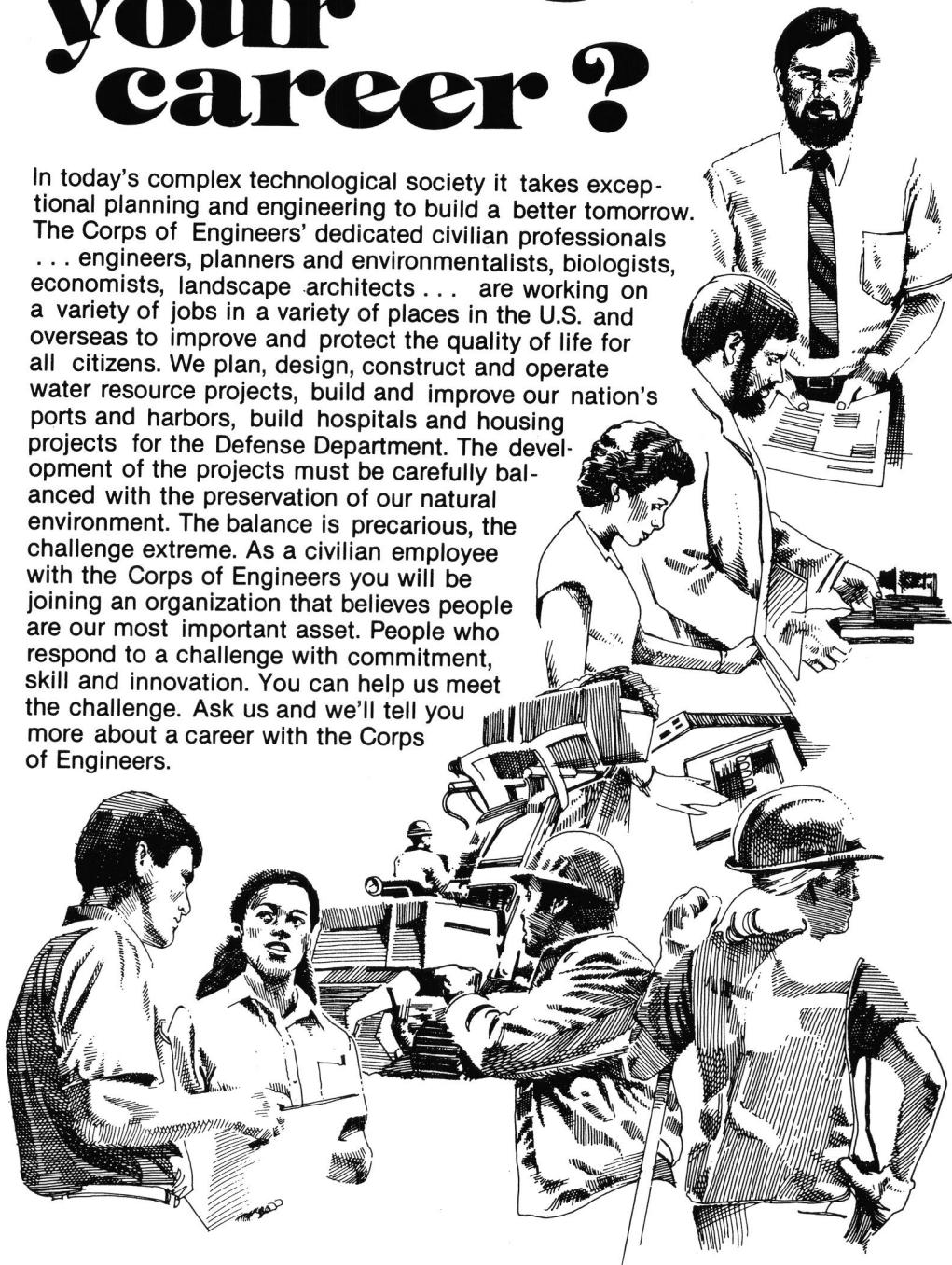
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VOLUME 32, NO.2 • THE GEORGE WASHINGTON UNIVERSITY • EDITION 2, SPRING 1985

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Established 1942

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MECHELECIV is a student and alumni magazine published 4 times a year (twice each semester) at the George Washington University by the direction of the Engineers' Council and in cooperation with the Engineer Alumni Association.

MECHELECIV serves the Engineering School community as a responsible student/alumni magazine, independent of the School and University administration in its management and decision making.

MECHELECIV is managed and administered in accordance with the "Policy and Procedures Governing the Cooperative Publication of MECHELECIV by Engineers' Council and Engineer Alumni Association". This document was agreed upon and signed on September 20th, 1984 by the Engineers' Council and the Engineer Alumni Association.

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The content of this magazine represents the individual expressions of the authors or editors and does not necessarily reflect the views or attitudes of the student body or of the University administration.

LETTERS TO THE EDITOR

Who Says Engineers Can't Write?

Dear Mr. Kamran:

I thoroughly enjoyed Mr. Daniel Briller's article on "Structural Catastrophes: Can They be Prevented?" in the Spring, 1985 Edition 1 issue of MECHELECIV. Not only was the article most interesting, but it was extremely well written. Mr. Briller is to be congratulated on his fine writing. He certainly presents an outstanding counter-example to the oft-voiced criticism of some of our Liberal Arts colleagues who claim engineers can't write. BRAVO, Mr. Briller!

Sincerely,

Donald Gross
Professor and Chairman
Department of Operations Research

ROTC: A GWU First?

Dear Mr. Kamran:

After I mailed my article to you, I read that GWU was reinstalling the ROTC. It occurred to me that the University might recognize that they were apparently first on deck with a unit to provide reserve officers for the U.S. Military forces.

Sincerely,
Benjamin C. Cruickshanks
Professor Emeritus of M.E.

SEAS Centennial Issue

Dear Mr. Kamran:

I enjoyed the reminiscences in the "S.E.A.S. Centennial" Edition of MECHELECIV, especially those of Ben Cruickshanks. The woman sitting across from him in the photograph on page 6, obviously somewhat bored (!), is my wife. I am sitting next to her, and Ben and I are apparently interested in what an unseen speaker is saying. The occasion was an alumni luncheon.

As noted in MECHELECIV, Ben Cruickshanks began teaching at GW in 1920. My claim to fame is that I was in the first mechanisms class he ever taught. He really taught it, too. He would load us down with assignments as if mechanisms was the only subject we were taking, and, during class, he would quiz us on every minute detail.

One evening, I came into the classroom a little early. Several of the other fellows were there, and we began complaining to each other about the length of our assignments. It is still not clear to me how it happened, but suddenly I had been elected to a committee of one to talk to Cruickshanks. He came in, sat down at his desk, and I approached him somewhat diffidently. "Mr. Cruickshanks," I said, "we have been discussing the assignments you have been giving us, and the fellows thought we should tell you that you have been giving us a very heavy load." He looked at me and asked, "How much time did you put in on today's lesson?" "Oh — about 2-1/2 or 3 hours," I replied, stretching the truth by about 100 percent. "What the hell are you complaining about?" he asked. "I spent 9 hours on it!"

I believed him. No wonder he knew the subject matter so well. We never complained again.

Very truly yours,
Samuel J. Rosenberg
BME 1924

Dear Mr. Kamran:

Congratulations on the Centennial Issue of MECHELECIV! As a 1950 graduate in civil engineering, it brought back many memories of my own days at G.W.

I remember my classes with Professors Ames and Cruickshanks very well, and I was pleased to know that Professor Cruickshanks is still active. Two other faculty members from the late 1940's might also have been mentioned. Dr. Bruce Green-shields taught highway engineering and was known for including surprise non-engineering questions in exams to test students' "common sense". Mr. Ralph Fuhrman was the Superintendent of the D.C. wastewater plant at Blue Plains and came to G.W. to teach evening classes in water supply and sewerage. He went on to become Executive Director of the Water Pollution Control Federation. I also remember that engineering students often took a "snap" elective called Mathematics of Finance and garnered the top grades in the class, to the chagrin of the statistics majors, for whom it was a key required course.

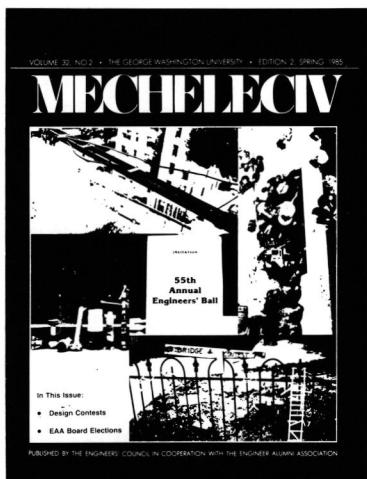
Best wishes for the continued success of MECHELECIV and SEAS.

Very truly yours,
James L. Martin
BCE 1950

More Letters on Page 4

LETTERS TO THE EDITOR POLICY: The opinions set forth in the "Letters to the Editor" page of this magazine are not necessarily the opinions of the staff of the MECHELECIV. This page is set aside each issue for use by students, alumni, faculty and staff of the School of Engineering and Applied Science. MECHELECIV will also accept letters from other sources if the letters concern the magazine or would be of interest to the School of Engineering community. MECHELECIV reserves the right to edit or omit any letter if lack of space deems it necessary, or if a letter appears to be unprintable in the opinion of the Editorial staff. All letters must be signed; however, pen names may be substituted if requested.

FROM THE EDITOR-IN-CHIEF



This issue marks the end of the second successful year of the "new" MECHELECIV, and the end of my role as its editor-in-chief. Endings encourage reflections — I'd like to take this opportunity to share some of my reflections on this past year.

This past year saw our circulation increase from 4000 to 10000, after our special agreement with the Engineer Alumni Association (EAA) brought S.E.A.S. alumni all over the country into our readership. Their letters of appreciation indicate their satisfaction with this "reconnection" with their alma mater. I feel great pride in the Engineers' Council, who on the behalf of all students, showed foresight and wisdom in expanding MECHELECIV readership beyond the current engineering student body, making it a magazine which serves the whole School.

MECHELECIV is still first and foremost a product of the Engineers' Council and therefore by implication, a product of the S.E.A.S. student community. As such, the magazine offers students a unique opportunity to share with peers, faculty, and alumni, their experiences, concerns, and opinions regarding student life at S.E.A.S. This past year S.E.A.S. students have contributed some excellent articles. I hope that this active student involvement through writing will continue in the future.

By far the most satisfying endeavor for the MECHELECIV staff

was the special S.E.A.S. Centennial issue. S.E.A.S. alumni who contributed to the Centennial issue deserve a special recognition. Without their support this historic issue would not have been possible.

Turning my thoughts from MECHELECIV contents to its management, I am less proud of our attempts to survive financially. The Engineers' Council, the EAA, and a number of alumni have contributed generously to the magazine, but we have not been able to cover the costs of printing the magazine for our 10000 readers, approximately 6000 of which are alumni. The EAA unfortunately does not have the means to subsidize subscription costs for all alumni. If all alumni could support MECHELECIV, if only through a subscription (\$2.00 per year), that in itself will take us a long way towards covering our costs.

MECHELECIV will undertake a substantial effort this summer to raise enough revenues through advertisements and contributions, to continue its service to all alumni. However, we have reluctantly accepted the possibility of not being able to maintain regular circulation to non-subscribing alumni, if finances so force us. I am optimistic that with alumni support, such a situation will not arise.

Returning my attention to contents once again, I am reminded that some students have indicated that MECHELECIV should focus more on "student issues." This touches upon some of the more important motivations of reestablishing MECHELECIV.

MECHELECIV belongs to a large family of engineering college magazines whose content and format is intended to be professional and semi-technical, with a different style and tone than that of student newspapers like *The GW Hatchet*.

Due to the very nature of such engineering magazines and their audiences, they have to maintain a high standard of quality and journalistic responsibility. In this connection, I am happy to share

with you, that in just the second year since its reemergence, MECHELECIV has evolved in quality and content as a leading magazine in the community of engineering college magazines nationwide.

Being an engineering magazine does not preclude MECHELECIV from reporting on "student issues." In fact, one of the more important purposes of MECHELECIV (as stated in its policy document) is to "endeavor to keep the School community informed of ... issues within and of interest or concern to the students." The difference of course is in the style of reporting and the nature of information "of interest to" students at S.E.A.S.

MECHELECIV has included some excellent articles on technical subjects written by students. The "Campus News" department was started, to report on events (academic and extra-curricular) and organizations — especially student organizations, within the School. MECHELECIV has also reported on issues like academic dishonesty and has covered Engineers' Council sponsored events such as Engineers' Week contests and the annual Engineers' Ball. In addition, MECHELECIV's special department "From the Engineers' Council" was established to encourage the Engineers' Council to represent the perspective of the S.E.A.S. student government.

In short, MECHELECIV provides the necessary support for students and the Engineers' Council to influence the content of the magazine towards any "student issue." The MECHELECIV staff has editorial responsibility to ensure that material published in MECHELECIV is accurate, well-written and within the framework of the established purpose and editorial policy of the magazine. Within that framework, we encourage and welcome individual students and the Engineers' Council to articulate matters of interest to them in MECHELECIV.

Being essentially run by student volunteers, MECHELECIV can only do so much with its "indigenous...Continued on Next Page

FROM THE EDITOR-IN-CHIEF

ous" resources. The more students that get involved, the more comprehensive MECHELECIV will be in its reporting. Without the students who have contributed their time in the past two years, the magazine would not exist. I would hope that MECHELECIV will continue to attract such a dedicated staff.

The students on the outgoing editorial board this year were responsible for bringing MECHELECIV back and reestablishing it as a tradition of this School. As such they made a special contribution, and I feel immense fortune in being able to work in a team of such superb people.

I am at a loss for superlatives to describe the commitment and effort of these fine people. Lucy Moran's editing talents have benefitted us all. As Engineers' Council president last year, Ayman Jumeau's total commitment and support for MECHELECIV was a source of great encouragement for us. And I can honestly say that without Houra Rais's never-ending energy, meticulousness, and hardwork, we would have been hard pressed to publish MECHELECIV.

Professor Douglas Jones, our faculty advisor, is a MECHELECIV institution, with his long-standing involvement with MECHELECIV, first as its editor when he was a student here himself, and then for many years its faculty advisor. He provided us with very useful insights and invaluable advice, not to mention many hours of his time, and his understanding and unrelenting support. His help was even more invaluable in formulating (for the first time) a policy document for MECHELECIV, and in achieving EAA collaboration in the publication of MECHELECIV. We are all grateful to Professor Jones for agreeing to serve another year as MECHELECIV's faculty advisor.

I would like to thank Mr. William Smith, GW's vice-president for student affairs. He has always been generous in his support and encouragement. And I am glad to see that the S.E.A.S. administration, while not being one of the first on deck in its support for MECHELECIV, has begun to provide support and recognition for this important and popular tradition of the School.

MECHELECIV's next issue will be under new leadership and staff.

Daniel Briller will take over the management of MECHELECIV this summer as editor-in-chief. I have had the pleasure to work with Danny this past year. I couldn't leave MECHELECIV in more capable hands. Danny has ambitious plans for MECHELECIV. With his hard work and commitment, I have no doubt that MECHELECIV will continue to improve and flourish.

This column would not be complete without mentioning TMI and its president, Jan Williams. Because of Jan, typesetting has become a pleasurable, and I might add the most cost effective, aspect of MECHELECIV. I leave MECHELECIV wondering about TMI's secret of running a successful business at almost no cost to its customers.

It's people who give life to a magazine: staff it, fill its contents, and look forward to reading it. My appreciation to our readers, who have made this effort so worthwhile. □



Abid Kamran
Editor-in-Chief

LETTERS TO THE EDITOR

Continued

Dear Mr. Kamran:

I want to congratulate you on the rebirth of MECHELECIV, which I missed for many years. I think the Centennial Issue (Volume 31, Number 3) is particularly impressive, and all concerned with getting this publication out should be commended.

Sincerely,
Joseph Y. Ruth
Assistant Vice President for Admissions and Student Records

Dear Mr. Kamran:

I received my copy of the Fall 1984 Edition 2 issue of the MECHELECIV. You are to be congratulated on it, not because it contains my "interview" but because I know how hard you worked to make the Centennial Issue something of special interest to the students and alumni.

Sincerely,
Bill Ellenberger
BEE 1930, BME 1934

Dear Abid:

Many people have told me what a fine issue they feel you put together in the form of the Fall, 1984 MECHELECIV. I wholeheartedly join them in this compliment! It seems to me that you can be very proud of the results of your efforts as Editor-in-Chief of this fine Journal. I am so pleased that you have made the effort to bring back this publication as a tradition of the School and the University.

Sincerely

William P. Smith, Jr.
Vice President for Student Affairs

*By Robert S. Babin,
BEE 1947*

All our lives, beginning with our very first reading experience in childhood, we have all been accustomed to reading printed text that is "right-margin justified," meaning that the right edges of all the lines of text are vertically in line, as they are in this paragraph. Right-margin justification, the standard format for all full-quality printed text, has been employed in every book and newspaper and in most magazines published since the invention of printing several centuries ago.

As readers, we all feel very much at ease with text having the familiar right-margin justification. But when the right margin is "ragged" — is not right-justified — as exemplified by the rest of this

raggedness, as done in this paragraph. For nearly a hundred years, man had to tolerate the substandard ragged-right-margin lines in typewritten text, because that was the best that could be done in business offices. Of course, whenever really first-class text was needed, the typewritten text was given to a printer, who copied it on his linotype or other printing machine capable of justifying the right margin.

During the past several years, however, typewriters have been replaced in modern offices by word processors that incorporate totally automatic right-margin justification as a standard, built-in feature. Text prepared with a word processor can be instantly right-margin justified with no extra effort whatsoever on the typist's part; hyphenating at the justified right margin takes the typist an extra ten seconds or so per page.

It's hard to believe that anyone who generates text using a word

margins are a good vehicle for applying brakes, for making efficient reading difficult. As a matter of fact,

in slick
advertisements
cutesy poo
text formats
like this one
are commonplace.

Most of us readers are tolerant of advertising's little absurdities. We appreciate that because most ad writers are bored out of their skulls, they frequently resort to razzle-dazzle to break the monotony, and that advertising text is meant to leave a general, emotional impression rather than to be actually read and literally understood.

Not so, however, with the other 99-plus percent of the prose we read. In its text we readers resent any use of gimmickry from advertising. While reading ordinary, nonsense prose, we most assuredly are not flattered by ragged, cutesy poo margins, and we take no joy in wading through them. They are a constant irritant to easy, efficient reading, just as a sharp pebble in our shoe is to walking. Their irrational use defies all reason. While scanning column after column of ragged-margin prose we find it particularly galling to realize that although the text was prepared on a word processor and was printed by a machine that was fully capable of right-margin justification, someone decided that cutesy poo margins would nevertheless prevail.

In the name of common sense and reason, the following advice is offered: those persons whose job it is to decide the format of columns of non-advertising text should once and for all disabuse themselves of the fantasy that there is something cute, modern, chic, artistic, or otherwise attractive about ragged right margins or that their use is in any way serving the reader. ■

paragraph, the text is harder to read. Its raggedness slows us down. Our eyes have to make an individual adjustment for each ragged right edge to avoid accidentally skipping a line of text. This degrades our reading comprehension and is a continual physical and psychological irritation to us while we read. No wonder teachers of adult courses in improved reading techniques emphasize the value of the justified right margin in better reading speed and comprehension. Make the comparison here, if you never have, and you'll quickly see that the ragged lines are significantly harder to read.

Among the many machines that print text, the typewriter has always been an exception in that it simply can't produce right-margin-justified text. The right margin comes out ragged, even after each polysyllabic word ending a line is hyphenated to minimize the

processor would purposely print columns without right-margin justification. Yet, incredibly, that is exactly what one sees nowadays in a few publications! As an added insult to the reader, some publications also totally omit all right-margin hyphenation, apparently in a dogged effort to make each column as rough and ragged as possible. The only plausible explanation I can think of is that some persons see ragged right margins as being somehow artistically superior to justified margins.

Apparently as a deft, "artsie" touch, a few publications nowadays actually print one article with its text right-margin justified and then follow it up with an article having ragged margins! Could it be that the careers of those "artists" have included some time in advertising? Most advertising text format is contrived to purposely slow the reader down to make time for a key claim or slogan to inundate his mind. Understandably, ragged text

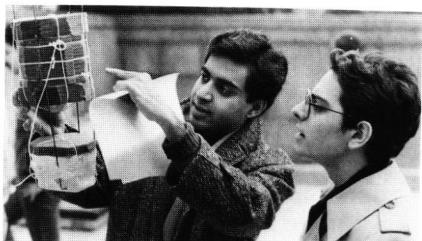
Editor's note: We have preserved the varying margin styles of the original copy of this article, so that readers can for themselves experience the merits of cutesy poo margins versus right justified margins!

EGG DROP: GW Engineers "Scramble" for Prizes

Engineers' Council Secretary Aaron Chilbert called it "eleventh-hour engineering at its finest." One might be tempted to call it a great big "yolk". At any rate, a multitude of capsules, made of cardboard, styrofoam, old socks, and anything else imaginable, were hurled to their doom from the fourth floor of Tompkins Hall on Friday, February 22, 1985. All was part of the annual Engineers' Week Egg Drop Contest. Fair weather and temperatures in the 60's provided ideal background conditions for this breath-taking and crowd-pleasing event.

The Egg Drop Contest has become a tradition of Engineers' Week here at George Washington. Each contestant designs and builds a vehicle, places a raw egg inside, and drops the whole thing from a height of approximately 67 feet onto a concrete sidewalk below. The only cushioning permitted is what can be stuffed into the vehicle itself. Entries whose eggs survive this rough landing are assigned a score based on their weight, time of fall, and distance from the point of impact to a bull's-eye target painted on the ground. There are certain design limitations, among them a maximum weight of 750 grams and a maximum length of 60 centimeters in any direction. Self-propelled or remotely-controlled devices are not allowed.

This year's winner, with a score of 198 points (lowest wins), was Jeff Weiss, a senior in Mechanical Engineering. Jeff's rocket-shaped entry consisted of a Pringles potato



"I understand, but where's the egg?"

chip container and a plastic Coke bottle, held together with duct tape. Sand shielded his egg during the descent. Jeff's was a "virgin" entry, meaning it hadn't been tested, but on the drop it hit the target dead on. Coming in second at 619 points was Ken Blum. Ken, last year's third-place winner, was confident that his square tube of beer-carton cardboard would safely carry its cargo. When asked about the probability of survival, immediately after the drop, he answered "very likely." Joshua Schwartz, whose entry incidentally was built in all of five minutes (!), came in third with 713 points.

One of this year's most curious entries was constructed by Jamshid Irdmusa, a graduate student in



First place winner Jeff Weiss (left) displays his answer to the space shuttle.

ENGINEERS'

Design

propulsion research. His was a green wool basket, with napkins surrounding the egg. When asked to explain his motivation for this design, he replied, "The best word to describe my vehicle is probably 'traditional'. After all, humanity has been carrying eggs in baskets for thousands of years. The ancients must have known something we don't." Jamshid won the prize for aesthetic appearance, voted by a panel of judges at the scene.

The drops were conducted in a manner similar to previous years. Each entry was suspended over the target from a long boom. A release mechanism on the boom was hooked to an Apple IIe computer that both timed the fall and

calculated the final scores. What was novel to this year's event was the use of a laser beam, right above the target, to register the precise moment of impact. When a falling vehicle "broke" the beam, the timer was instantly stopped. In the past, this reading had to be taken manually with a stopwatch, making it solely dependent on the eye-hand coordination of the person timing it. Also, as many in the audience commented, it added a "hi-tech" element to the contest.

As there are every year, a number of "gags" were entered to round out the field. Kevin Basso's "A Tribute to Michael Jackson" featured two sneakers stuffed with toilet paper and a pair of gloves. Another entry, fittingly dubbed

"Lunch: Egg Sandwich", began life as a bag labelled GIANT ENRICHED CINNAMON BREAD and filled with styrofoam, but it was successful and came out with 759 points. Another unexpected triumph was Ed Wu's "Brown Lamp-Shaped Object." Upon unwrapping it and finding the egg intact, Ed joyously shouted "It's alive!"

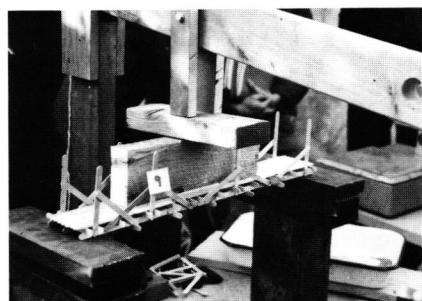
Such is the spirit of the GWU Egg Drop Contest. So next year, if you have some leftover eggs from Halloween and you're looking for some practical design experience, come on down! The contest is open to all students and anyone affiliated with the University. We promise you no less than a "smashing" good time! ■

Bridge Contest Reveals Sagging Support

The hastily-assembled Second Annual Bridge Building Contest was held outside the Davis-Hodgkins Engineering House, on Friday, February 22, 1985. This particular contest challenged students to build the strongest bridge possible, using only popsicle sticks and white glue (no epoxy or superglue). The qualifying parameters included a length between 22 and 26 inches, a height between 4 and 8 inches, and a maximum weight of 200 grams. As was done last year, the bridges were placed on two cinder blocks,

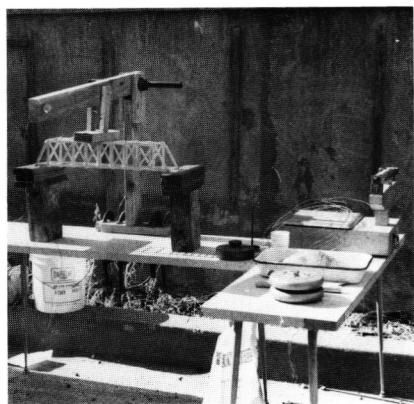


Bridges in this contest came in varying shapes and designs. A bridge is first set in place (above) and then subjected to stress (below).



WEEK 1985

Contests



Bridge stress-testing equipment in place.

and a compressive load was applied at the center of each by a specially designed arm.

This year's winner was Mark Levine, who entered with a rebuilt version of the structure that earned him second place a year ago. Mark's bridge withstood a remarkable one hundred and seventy-one pounds (unofficial), prior to failure. In fact, it was strong enough to break the compression rig along with it and make it imperative to load the remaining entries by piling dumbbell weights on top. Engineers' Council President Ayman Jumean's bridge came in second at one hundred and sixty-five pounds, and Aaron Chilbert's was third.

It must be added here that this

event, like most other events held during Engineers' Week this year, demonstrated more "management by impulse" than organization. First of all, the contest was moved on a whim from its usual site in the parking lot of Tompkins Hall to the front of the Davis-Hodgkins House. The Tompkins parking lot is much more spacious and can more easily accommodate the equipment for this contest. Second, the cracked and uneven pavement in the front yard of the House made it difficult to find a level place to set up. Thus, the final results were, at best, unreliable. Also, this writer was forced to serve as the "impartial" official for the contest, as no one else was available. I for one, wouldn't trust the judgement of an official chosen in this fashion! Seriously, a little careful planning might have gone a long way toward making the event a more successful and exciting facet of Engineers' Week. ■

FROM THE ENGINEER ALUMNI ASSOCIATION

RECEPTION AND TOUR OF SEAS CAD/CAM FACILITY

**Thursday, May 9, 1985
6:30 PM – Tompkins Hall
23rd & H Streets, NW**

The EAA will sponsor a reception in the front lobby (23rd Street Entrance) of Tompkins Hall at 6:30 PM on Thursday, May 9, 1985. Following the reception, Michael White, head of the SEAS computing facility, will lead us on a tour of the SEAS Computer Aided Design/Computer Aided Manufacturing (CAD/CAM) facility. The computer equipment and software in this facility were donated to SEAS by IBM. The University was one of only twenty in the country granted CAD/CAM systems by IBM. The donation of the CAD/CAM system has allowed SEAS to upgrade its curricula so as to provide engineering students (both graduate and undergraduate) with knowledge and skills that will enhance their career opportunities.

Come, join us for food and conversation; then tour the CAD/CAM facility and see how computers are enhancing engineering education. Call the Alumni Relations Office (676-6435) by May 6, 1985, to make reservations for yourself and a guest.

NOTE: Because this is the week between graduation and the beginning of summer school, plenty of street parking should be available close to Tompkins Hall. □

Schedule of Upcoming EAA Events

May 9, 1985: Reception and tour of SEAS CAD/CAM Facility, 6:30 PM, lobby of Tompkins Hall.

June 8, 1985: Alumni Weekend, SEAS Reception, 3:00-4:00 PM; see future mailing for more details.

September 28, 1985: Annual Student/Alumni Picnic.

Tentative Embassy Functions (pending confirmation)

Embassy of Jordan
Embassy of Finland

ANNUAL DEAN'S RECEPTION — EAA Awards Presented

The Dean's Reception was held on Thursday, March 21, 1985, in the main dining room of the GW Club in the Marvin Center. A good group of Alumni, SEAS faculty, and graduating seniors attended the function, along with members of the University administration. The room was elegant and the food superb. Music was provided by a string quartet, which played a number of Bach tunes in honor of the 300th anniversary of the composer's birth. Many thanks to our host, Dean Liebowitz, and to his executive associate, Marge Hansen, who made the arrangements for the reception.

Mary Jones, president of the EAA, welcomed everyone to the reception and thanked those alumni and students who contributed to the success of the joint

student/alumni publication of MECHELECIV magazine. Provost William D. Johnson, representing President Elliott, then gave a short talk. Each graduating senior who attended the reception was given a small gift by the EAA. The following awards were then presented:

***Gift of Appreciation:* Nahid Khozeimeh**

Nahid has made the arrangements for the popular Embassy receptions that the EAA has sponsored over the past few years. Those of you who attended our recent receptions at the Embassies of the Soviet Union, Indonesia, and China can thank Nahid for making the arrangements. She has also organized several other activities and has served as our liaison to other offices of the University. Nahid was Program Chairman of the EAA the past two years and is Treasurer this year. She is one of the hardest working members of the Board of Directors.

***Engineer Alumni Service Award:* Eric Mendelsohn**

The Engineer Alumni Service Award was established in 1971 to recognize those alumni of the School of Engineering and Applied Science who have generously contributed their services to the Engineer Alumni Association, the School of Engineering and Applied Science, and The George Washington University. The first two awards were presented in 1974, and they have been given annually since that time.

Eric Mendelsohn has been a member of the Board of Directors of the Engineer Alumni Association since 1973. He served as Editor of the EAA newsletter from 1975-1977, Treasurer of the Association from 1977-79, Vice President from 1979-82, and President from 1982-84. Eric's activities in the EAA have included assisting with the revision of the EAA By-Laws and development of the EAA Operations Manual and participating in the

FROM THE ENGINEER ALUMNI ASSOCIATION

arrangements for the EAA Alumni/Student picnic for the past nine years. He was the EAA representative on the planning committee for the first two Reunion Weekends and was responsible for planning the EAA functions associated with those weekends. Eric has participated in the George Calling Phonathon for the past 11 years and was the EAA coordinator for the fund raising drive this year.

Eric has served on the Governing Board of the General Alumni Association since 1982 and has been a member of the GAA Achievement Awards Committee for the past three years. This year, Eric is chairman of the GAA Regional Programs Committee.

Engineer Alumni Achievement Award: Francis L. Hermach, Erwin E. Shalowitz.

The Engineer Alumni Achievement Award was established in 1971 to recognize those alumni of the School of Engineering and Applied Science with outstanding achievements in their chosen careers. The award was first presented in 1972 and has been awarded annually since that time.

Francis L. Hermach received his Bachelor of Electrical Engineering degree from The George Washington University in 1943. He worked in the Electricity Division of the National Bureau of Standards from 1939 to 1976, serving as Chief of the Electrical Instruments Section and Deputy Chief of the Electricity Division. He developed standards and instruments for measuring various electrical quantities and procedures for evaluating hazards from static electricity. Mr. Hermach has served on several standards-writing committees of the American National Standards Institute and the National Fire Protection Association. He is now a consultant in Electrical Metrology and has assisted several foreign countries in setting up their national standards laboratories.

Mr. Hermach has published

over 30 technical papers, given over 80 presentations, holds two patents, and is a registered Professional Engineer. He is a Fellow of the IEEE and was Chairman of its Instrumentation and Measurements Society. He is also a Fellow of the Instrument Society of America and the Washington Academy of Sciences. He has received two national awards from the IEEE and the silver medal and two NBS certificates for distinguished service from the Department of Commerce.

Erwin E. Shalowitz received his Bachelor of Civil Engineering Degree from The George Washington University in 1947. He has been Chief of the Research Branch and Chief of Management Information and is presently Chief of Contracting Procedures and Support for the General Services Administration. In this capacity, he has been responsible for the development of an atomic blast simulator and for the design and construction of a blast-resistant underground center.

He has chaired or served on the Government Management Intern and Building Systems Liaison Groups and Committees for Fire Safety, Fallout Protection, and Building Evaluation. He has served on the National Evaluation Board on Architecture-Engineer Selection and the National Academy of Sciences Committee on Procurement Policy.

Mr. Shalowitz is a member of a number of professional societies and is a Fellow of the American Society of Civil Engineers and the American Biographical Institute. He is a registered Professional Engineer, a member of engineering and political science honor societies, and a recipient of a number of awards for his engineering work.

Following the awards presentation, Dean Liebowitz presented some remarks on the problems facing the country's engineering

schools and also offered some ideas that the School of Engineering and Applied Science submitted to the Commission for the Year 2000. Some of the problems facing engineering schools are a continuing shortage of qualified engineering faculty coupled with a doubling of undergraduate engineering enrollment, a dramatic decline in the last decade of the number of engineering doctoral degrees awarded to U.S. citizens by U. S. universities, a projected 17% decrease in 22-year olds by 1990, and a lack of state-of-the-art equipment for engineering labs in universities throughout the country.

The following recommendations were made by SEAS to the Commission for the Year 2000:

1. Establishment of a SEAS Center for High Technology
2. Appointment of additional full-time faculty
3. Upgrading of engineering laboratory facilities and equipment
4. Construction of a new Engineering School building
5. Expansion of the SEAS Continuing Engineering Education Program to include hands-on training courses, laboratories and equipment.

The Dean also reported that the SEAS Center for High Technology was established on February 14 to promote interdisciplinary research and to serve as an educational support facility for the various departments. In addition, \$500,000 has been programmed next year for the new Visiting Engineering Faculty, allowing SEAS to appoint 13 new faculty and thus reduce the high part-time teaching ratio it has carried in recent years. The freshman SAT scores this past year have averaged 1170 for SEAS students, 100 points higher than any other division in the University. In his closing remarks, the Dean stated, "We have come a long way and look ahead to the Year 2000 with confidence. Join us in our effort to achieve excellence, which is essential for a private university to prosper." □

FROM THE ENGINEER ALUMNI ASSOCIATION

EAA BOARD ELECTIONS

(Voting limited to Engineer Alumni only)

Seven candidates have been nominated to serve three-year terms on the Board of Directors of the Engineer Alumni Association. Five candidates will be elected.

The candidates are as follows:

NAME: Inam Ghazali (new candidate)
DEGREE: MS (ME), 1984
EMPLOYER: Science Applications International Corporation
PLATFORM: I have seen the affairs at GWU both as a student and as an instructor. I feel that a lot is needed to be done to make our alma mater a seat of excellence. To this end, the alumni have an important role to play, which can be effectively geared and coordinated by the EAA. I would like to join the EAA as an active member, and I hope to be able to make a substantial contribution.

NAME: Richard Hu (current Board member)
DEGREE: MEA, 1973
EMPLOYER: U.S. Navy
PLATFORM: I have served as treasurer of the EAA. I would like to continue my service to the Board in planning interesting events that

will bring together faculty, students, and alumni.

NAME: Mary O. Jones (current Board member)

DEGREE: MS (CS), 1976

EMPLOYER: U.S. Geological Survey

PLATFORM: I would like to continue to expand the operations of the EAA, increase the financial support base available to the Association, intensify our efforts to activate the scholarship program, and sponsor activities that will involve more engineering alumni, students, and faculty.

NAME: Rick Kocinski (new candidate)

DEGREE: MS (ME), 1984

EMPLOYER: Consultant to ANSR

PLATFORM: As a recent graduate of the School of Engineering and Applied Science, I see the need to build a stronger sense of community respect among recent graduates. Some programs that the Engineer Alumni Association should consider initiating to strengthen community spirit include seminars and informal lectures on topics of interest, such as career planning, financial planning, etc.

NAME: Jeffrey P. Meeker (new candidate)

DEGREE: BS (ME), 1984

EMPLOYER: Martin and Stern, Inc.

PLATFORM: As an undergraduate student, I was an active member of Tau Beta Pi and Pi Tau Sigma (engineering honor societies). I served as a student advisor and participated in the engineering externship program. If elected, I would be particularly interested in monitoring the SEAS curricula and in contributing my support to alumni activities.

NAME: Jay Mendelbaum (new candidate)

DEGREE: DSc, 1982

EMPLOYER: Office of the Secretary of Defense

PLATFORM: I would like to enhance the SEAS relationship with the community at large. We could make available our engineering and scientific expertise to local community service organizations.

NAME: Diego R. Roque (current Board member)

DEGREE: DSc, 1982

EMPLOYER: George Mason University, Department of Systems Engineering

PLATFORM: I would like to continue fund-raising efforts to establish a permanent EAA scholarship fund, and to participate in the development of goals and strategies to ease our School's transition into the next decade with a strong, relevant, and quality engineering program. □

BALLOT

PLEASE NOTE: Only Engineer Alumni Can Vote

(xerographic copies of ballots are *not* permitted)

— following information required for ballot validation —

Name: _____

Year of Graduation: _____

Signature: _____

Vote for no more than 5 candidates (with a ✓)

Inam Ghazali

Richard Hu

Mary O. Jones

Rick Kocinski

Jeffrey P. Meeker

Jay Mendelbaum

Diego R. Roque

Write-In

DEADLINE: Ballots must be postmarked no later than Friday May 24, 1985

PLEASE CUT ALONG BORDER AND MAIL BALLOT TO:
The George Washington University
Engineer Alumni Association
714 21st Street, NW
Washington, DC 20052

CAMPUS NEWS

ABOUT THE "CAMPUS NEWS"

PAGE: The purpose of providing this space for campus news is to inform the Engineering School community of interesting events and activities. Such news may include (but is not restricted to) information about professional and honor societies; research and other academic activities, important administrative and academic decisions and policies, faculty spotlights; research and teaching fellowships, and other financial support information for students; "calls for participation" in informal research groups, sponsored research, and social events; and so on.

In order to enhance the gathering and inclusion of such information, the following faculty have volunteered to serve as their department's liaisons to MECHELECIV:

Professor Walter Kahn
EE/CS
Acad. Cen. T643
676-7186

Professor Douglas Jones
CMEE
Acad. Cen. T702
676-6929

Professor Presson Shane
EAD
Gelman Lib. 633
676-7153

Professor Donald Gross
OR
Tomp. Hall 101
676-6084

Though MECHELECIV will make every effort to report on any interesting activity, any individual, group or department interested in publicizing any news, activity or decision, is encouraged to take the initiative and provide such information to MECHELECIV by either contacting one of the faculty listed above, or by directly contacting MECHELECIV at 676-3998. Information or material may also be either mailed or delivered to the MECHELECIV office at Room 203, Davis-Hodgkins House, 2142 G

Street, N.W. Washington, D.C. 20037. With any material that is submitted, please include the name of a "contact person" and a telephone number or address where the contact person can be reached. MECHELECIV reserves the right to edit or omit any material that is submitted. □

Department of Electrical Engineering and Computer Science (EE/CS)

REVISED GRADUATE PROGRAM IN COMPUTER SCIENCE

The Department of Electrical Engineering and Computer Science is changing entrance requirements, programs of study, and the Master's Comprehensive Examination in the areas of concentration which comprise Computer Science. These areas of concentration are: Computer Science - Hardware and Systems; Computer Science - Software and Systems; Computer Science - Artificial Intelligence and Simulation (Supersedes Simulation and Numerical Methods).

The entrance requirements for students whose major is in one of these areas will be the same for each area and are effective for admission beginning in Fall, 1985. The Department is also implementing a core set of suggested courses for all Master's Degree students in any of the Computer Science major areas. The core program will be phased in over two years.

The Master's Comprehensive Examination will also change during the phase-in period. All students in Computer Science areas of concentration should plan their programs of study to be adequately prepared for the Master's Comprehensive Examination in the year in which they plan to

take the exam.

A handout is available in the Department describing the revised program, the entrance requirements, and comprehensive exam coverage, as well as outlines of many of the graduate computer science courses. For further information, contact the Department of Electrical Engineering and Computer Science at 676-6083. □

A.M. ABDALLA MEMORIAL FUND

The A.M. Abdalla Memorial Fund was established in July, 1984 by Dean Liebowitz, the School of Engineering and Applied Science, and the Department of Electrical Engineering and Computer Science. This is to honor Professor Abdalla, who was fatally injured in an automobile accident in Cairo, Egypt. Professor Abdalla had just assumed the Chairmanship of the Department when he died. His wife, Wagida, and their two young children mourn his loss, as do his colleagues at the University. It is the hope of all of us that Professor Abdalla's ideas for improving the Department and for enhancing its resources will be carried forward.

This Memorial Fund has been established so that future EE/CS students will be reminded of Professor Abdalla's many contributions to the Department of Electrical Engineering and Computer Science. Donations to the Fund will be placed in an interest-bearing account, and an annual award will be given to an outstanding EE/CS student in Professor Abdalla's name.

The names of contributors who donate \$100 or more will be placed on a plaque to be displayed in the Engineering Building. Those who wish to donate to the fund should send a check payable to the A.M. Abdalla Memorial Fund, care of Ms. Marge Hansen, the School of Engineering and Applied Science, George Washington University, Washington, D.C. 20052. □

HONOR SOCIETIES

ETA KAPPA NU – Electrical Engineering

Eta Kappa Nu is continuing the tradition of outstanding service to the Engineering School Community it has provided since 1979. As the International Honor Society for Electrical Engineers, it seeks to reward and encourage outstanding academic achievement, exemplary character, and willingness to serve both the profession and one's fellow members.

The activities of the George Washington University Chapter of Eta Kappa Nu are designed to bring us closer to these high ideals. For example, in February, the chapter sponsored a free, two-week tutoring session, open to all students within the Engineering School. Chapter members provided assistance in such areas as the physical sciences, computer programming, and electrical engineering.

The main project being installed this semester is the Eta Kappa Nu Teachers' Award. Eta Kappa Nu believes that superb and dedicated educators are invaluable assets to the University Community. Thus, to recognize and express our appreciation toward these individuals, we will be selecting three professors annually to receive this award. One recipient will be chosen from each of the following categories: full-time professor, part-time professor and Graduate Teaching Assistant. This year's honorees were selected on the

basis of a survey conducted in March among all students taking Electrical Engineering or Computer Science courses. Final evaluation will take place in early April, and a reception for the presentation of these awards will be announced. This reception will be open to all members of the Engineering School Community.

Another activity of note was the combined initiation ceremony and cruise down the Potomac River, on March 23, 1985. Twenty new members were formally inducted into Eta Kappa Nu that day, among them Professor Ting Lee and four graduate students.

Any student interested in joining Eta Kappa Nu may leave a note in the chapter's mailbox in Tompkins Hall, Room 103. Please contact us as soon as possible, as we can then take appropriate action to consider you for membership. □

PI TAU SIGMA – Mechanical Engineering

Webster's defines fraternity as "a group of people associated or formally organized for a common purpose, interest, or pleasure..." Pi Tau Sigma fits this definition in the truest sense of the word. Specifically, it is a national fraternity for exceptional Mechanical Engineers and Mechanical Engineering students. As a society, it strives to encourage high ideals and ethics among its members, in addition to promoting their mutual professional welfare.

Pi Tau Sigma was founded at the University of Illinois, on March 16, 1915. Established in 1981, the Phi Gamma Chapter at The George Washington University is one of over one hundred and thirty currently active nationwide. New members are chosen annually on the basis of their outstanding character, scholarship, and service

to the Engineering School and greater community.

The society is always looking to keep its members active by engaging in various projects throughout the course of the school year. In the past, it has organized field trips to nearby industrial installations, and it hopes to continue this service in the future. At present, some members are working on, in cooperation with the Student Chapter of the American Society of Mechanical Engineers, designing and constructing an all-terrain vehicle for the national Mini-Baja competition. Furthermore, the chapter is hoping to join with the George Washington University Board of Chaplains in volunteering its members for human resource projects in the greater Washington, D.C. community.

Are you eligible to join Pi Tau Sigma? You are if you are majoring in Mechanical Engineering and rank in the top 33% of your junior class or top 35% of your senior class. In special cases, graduate students may also be eligible. Any graduate student interested in joining should speak with the society's faculty advisor, Dr. Roger Kaufman. Anyone seeking further information of any sort should write to:

Pi Tau Sigma
Tompkins Hall, Room 103
The George Washington University
725 23 St., N.W.
Washington, DC 20052

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